

I claim exclusive property and privilege over the following:

1. A process for pattern formation comprising
coating a carrier with a photosensitive material,
exposure of the material to radiation, and
physical transfer of the exposed material to a substrate.
- 2 The process of claim 1, further comprising the step of
development of the exposed photosensitive material after the material is
transferred to the substrate.
- 3 The process of claim 2, in which the substrate is a curved surface, and the
carrier is manufactured from a flexible material.
- 4 The process of claim 1, in which
the carrier is fabricated from the group of materials consisting of quartz, glass,
silicon dioxide, silicon nitride, sodium chloride, silicon, and gallium arsenide.
- 5 The process of claim 1, in which
the carrier is fabricated from a polymeric material.
- 6 The process of claim 1, in which the
photosensitive material is a photoresist.
- 7 The process of claim 1, in which
the exposure step comprises exposure to UV photons.
- 8 The process of claim 1, in which the
photosensitive material is sensitive to electron beam exposure, and the exposure
step comprises exposure to electron beams.

- 9 The process of claim 1, in which
an adhesion layer is added to the photosensitive material on the carrier.
- 10 The process of claim 9, in which
a removal layer is formed between the carrier and the photosensitive material.
- 11 The process of claim 10, in which
the adhesion layer comprises multiple layers.
- 12 The process of claim 1, in which
an adhesion layer is added to the substrate.
- 13 The process of claim 12, in which
a removal layer is formed between the carrier and the photosensitive material.
- 14 The process of claim 12, in which
the adhesion layer comprises multiple layers.
- 15 The process of claim 14, in which
an additional adhesion layer is added to the photosensitive material.
- 16 The process of claim 15, in which
the additional adhesion layer comprises multiple layers.
- 17 The process of claim 1 in which
the transfer of the photosensitive material to the substrate comprises
bringing the carrier with the material in close physical proximity to the substrate
and pressing the carrier, substrate, and intervening films together.
- 18 The process of claim 17, in which
the carrier and the substrate are heated above room temperature while in close
physical proximity.

- 19 The process of claim 17, in which
the carrier and substrate are exposed to radiation while in close physical
proximity.
- 20 The process of claim 19, in which
the radiation comprises UV photons.
- 21 The process of claim 17, in which
a solvent is introduced to dissolve a part of the intervening films.
- 22 The process of claim 17,
including the additional step of alignment between the carrier and the substrate.
- 23 The process of claim 17,
including the additional step of alignment between the exposed material and the
substrate.
- 24 An integrated circuit fabricated by a process comprising
coating a carrier with a photosensitive material,
exposure of the material to radiation,
physical transfer of the exposed material to a substrate, and
development of the photosensitive material.
- 25 A photomask fabricated by a process comprising
coating a carrier with a photosensitive material,
exposure of the material to radiation,
physical transfer of the exposed material to a substrate, and
development of the photosensitive material.

- 26 A photonic device fabricated by a process comprising
- coating a carrier with a photosensitive material,
 - exposure of the material to radiation,
 - physical transfer of the exposed material to a substrate, and
 - development of the photosensitive material.
- 27 A biochip fabricated by a process comprising
- coating a carrier with a photosensitive material,
 - exposure of the material to radiation,
 - physical transfer of the exposed material to a substrate, and
 - development of the photosensitive material.